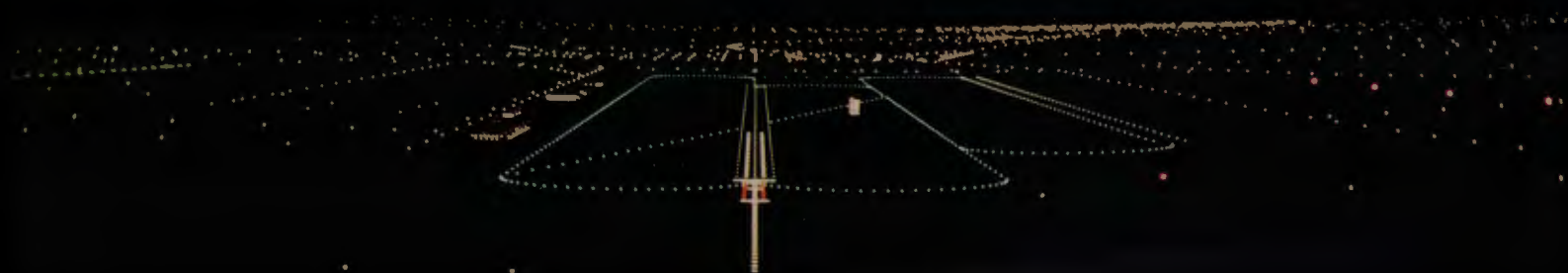


IMAGE II



The world's first visual system
employing microprocessors instead
of computers offers many advantages:

- Enhanced image quality
- Brighter pictures
- Greater realism
- More moving traffic
- Increased random light capability
- Simpler operating software diagnostics
- Extended occulting
- Modular expandability
- Greater reliability
- Superior performance/cost ratio

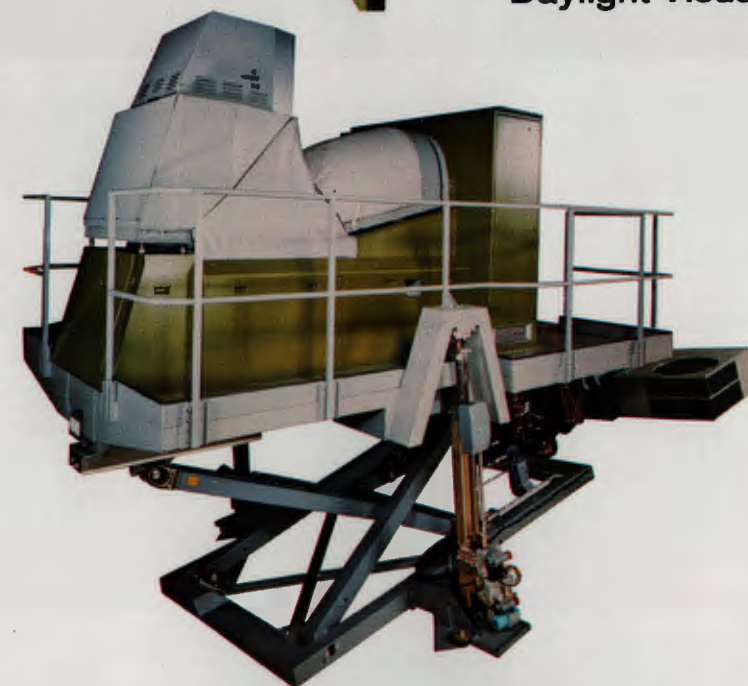


IMAGE II*

Visual System

This high resolution dusk/night
system is designed for:

- Maximum training benefits
- Easy maintenance
- Application to military
and civil aircraft simulators
- Retrofit to existing simulators
- Expansion up to five channels
- Upward compatability to IMAGE III*
Daylight Visual System



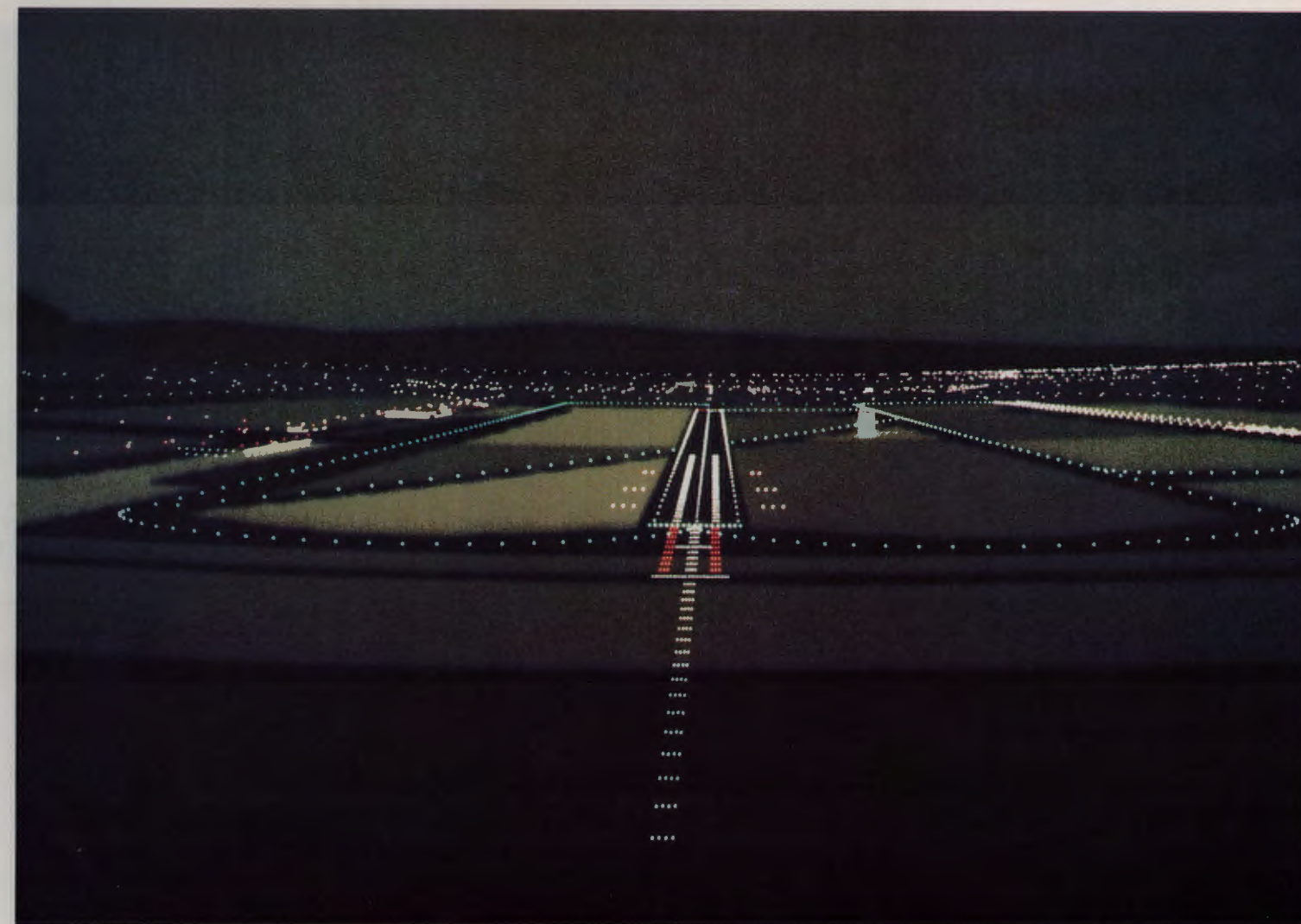


Scope

The IMAGE II* System includes all features needed to satisfy the requirements of Phase II of the FAA Advanced Simulation Regulations.

The IMAGE II System is capable of upgrading to the IMAGE III* Daylight System to meet Phase III of FAA Advanced Simulation Regulations.

The IMAGE II System can provide ground, seaborne and airborne targets for air-ground and air-air weapon delivery practice.



Instructional Value

The IMAGE II System has been developed by Link to enhance the training capability of the simulator during taxiing, take-off, cross-country, circuit, approach and landing procedures in all weather conditions. The system is under the direct control of the instructor who can select the required airport scene, environmental conditions (cloud, visibility, RVR, patchy fog, ice, etc.) and runway lights.

The visual displays provide added realism and augment the value of simulator exercises for experienced crew members since they permit operational training over the whole spectrum from VFR to CAT 3 conditions.

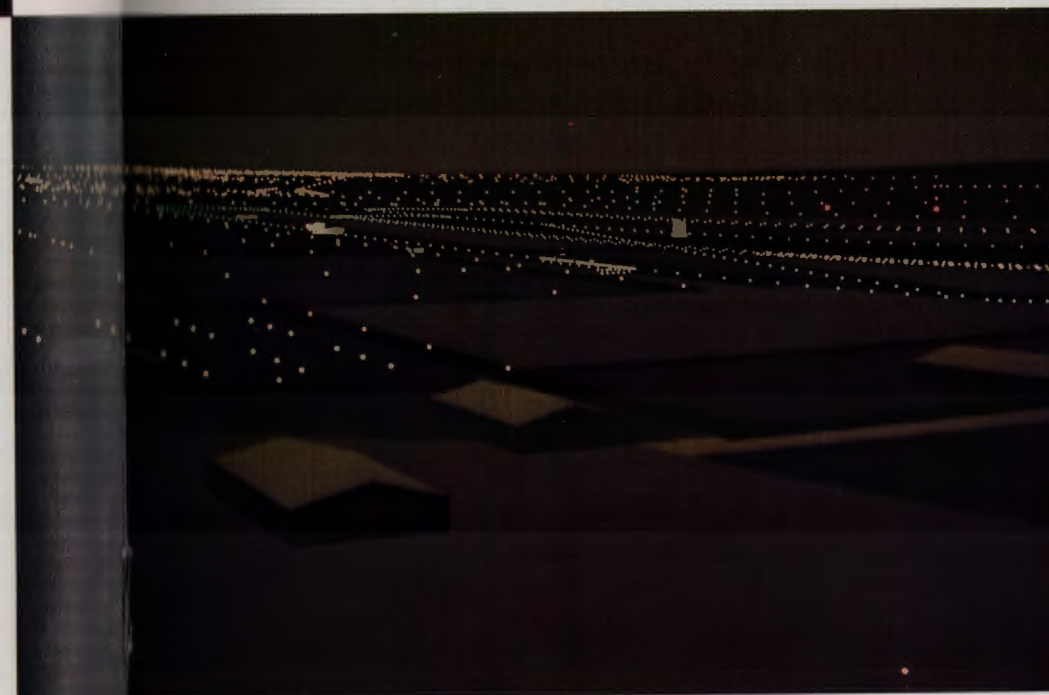


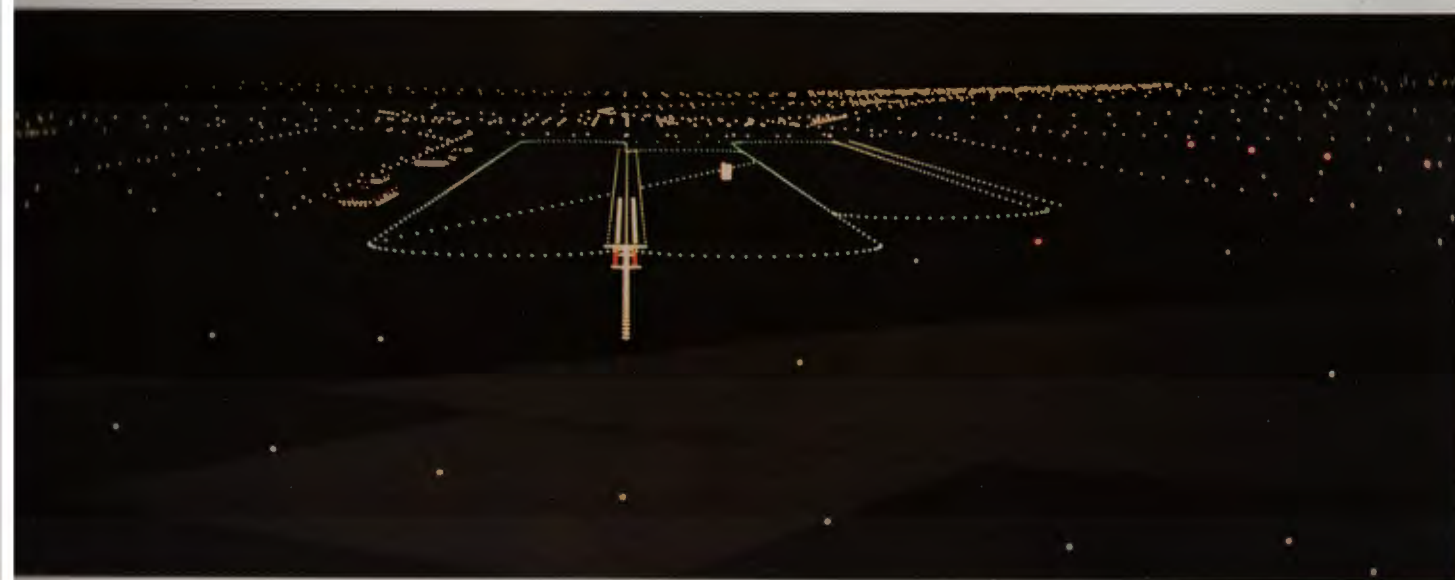
Visual Features

During a simulated flight in the vicinity of the airport the displayed scene from the front cockpit includes:

- Whole airfield area and all significant features
- Area surrounding airfield, depending on visibility and aircraft altitude
- Ground and airborne traffic—static and moving
- Horizon under clear conditions
- Environmental surfaces, runway markings, etc.
- Smooth transition from dusk to night

Away from the airfield, urban lights and other navigational features are seen as in the real world, with imperceptible transitions between geographically adjacent data bases for navigation training.





Training Benefits

The flexibility of the displayed scene allows effective training in all weather conditions . . .

- Good visibility with variable cloud base
- Variable runway visual range
- Variable intensity runway and approach lights

Technical Qualities

A revolutionary design by Link uses the most up-to-date microprocessor technology.

Key advantages of microprocessing techniques are:

- High reliability and easy maintenance
- Modular configuration with flexibility to match system requirements
- Easily expanded to provide additional channels for new training requirements
- Readily adapted to take advantage of future technological advances in microelectronics
- Avoids limitations of main frame visual computer and associated software



Principal Features

Principal features of IMAGE II Systems arising from the up-to-date technology used, some of which is unique in current dusk visual systems, include:

- Calligraphic beam-penetration CRT for accurate high brightness display
- Large light point display capability—seven colors, directional, flashing and rotating lights
- Variable direction and lobe shapes for light points—eight patterns available
- Straight and curved light strings—easily defined
- Large raster-generated surface capability
- Display capability per channel independent of number of channels
- Economical generation of complex hill outlines
- Thirty-two occulting levels for lights—no limit to number of lights occulted
- Unlimited occulting of surfaces by surfaces
- Full range of weather effects
- Static or moving ground traffic with airborne traffic
- Multi-sided surface capability—10 sides
- Anti-collision lights, strobes, VASIs
- Realistic landing light simulation
- En-route visual capability





System Reliability

A major consideration in the design of the IMAGE II System is the ability to operate correctly and continuously throughout all training periods. System availability depends on both equipment reliability and minimum down time when faults do occur. The latter in turn depends upon ease of fault diagnosis and maintenance. Improvement in all these aspects is a continuing aim.

System features which contribute to meeting this objective are:

- Modular system design
- Easily replaced p.c. boards and sub-assemblies
- Extensive built-in test facilities
- System diagnostics and display test patterns
- Component count minimized
- Minimum number of types of p.c. boards
- Availability of comprehensive support services

Product Support

The services which will be provided with the visual system are:

- A comprehensive technical documentation package designed to facilitate utilization, maintenance and general support of the system
- A list of recommended spare parts considered necessary to ensure uninterrupted availability of the visual system
- A list of recommended tools and test equipment to support the maintenance concept
- A training course for the buyer's maintenance staff



THE SINGER COMPANY